

WHAT IS CLAIMED IS:

1. A signal processing apparatus comprising:  
means for converting a data stream containing audio packs  
5 into packets each having a given area assigned to real data, the audio  
packs storing PCM multiple-channel audio contents information;  
and  
means for enabling channel information and a portion of the  
audio contents information to be placed in adjacent portions of the  
10 given area respectively, the channel information corresponding to  
the portion of the audio contents information.
2. A signal processing apparatus comprising:  
means for receiving packets each having a given area assigned  
15 to real data, the packets resulting from conversion of a data stream  
containing audio packs storing PCM multiple-channel audio  
contents information, channel information and a portion of the  
audio contents information being placed in adjacent portions of the  
given area respectively, the channel information corresponding to  
20 the portion of the audio contents information; and  
means for decoding the channel information.
3. A method of signal transmission, comprising the steps of:  
converting a data stream containing audio packs into packets  
25 each having a given area assigned to real data, the audio packs  
storing PCM multiple-channel audio contents information;

enabling channel information and a portion of the audio contents information to be placed in adjacent portions of the given area respectively, the channel information corresponding to the portion of the audio contents information; and

5 transmitting the packets via a serial interface.

4. A signal transmission medium comprising:

means for converting a data stream containing audio packs into packets each having a given area assigned to real data, the audio  
10 packs storing PCM multiple-channel audio contents information;

means for enabling channel information and a portion of the audio contents information to be placed in adjacent portions of the given area respectively, the channel information corresponding to the portion of the audio contents information; and

15 means for transmitting the packets from a transmission side to a reception side via a serial interface.

5. A signal processing apparatus comprising:

means for converting a data stream containing an audio data  
20 stream into packets each having a given area assigned to real data, the audio data stream storing audio data resulting from a compression process; and

means for enabling compression information to be placed in the given area, the compressing information representing a type of  
25 the compression process.

6. A signal processing apparatus comprising:  
means for receiving packets each having a given area assigned to real data, the packets resulting from conversion of a data stream containing an audio data stream storing audio data resulting from a compression process, compression information being placed in the given area, the compression information representing a type of the compression process; and  
means for decoding the compression information.
7. A method of signal transmission, comprising the steps of:  
converting a data stream containing an audio data stream into packets each having a given area assigned to real data, the audio data stream storing audio data resulting from a compression process;  
enabling compression information to be placed in the given area, the compression information representing a type of the compression process; and  
transmitting the packets via a serial interface.
8. A signal transmission medium comprising:  
means for converting a data stream containing audio packs into packets each having a given area assigned to real data, the audio packs storing audio data resulting from a compression process;  
means for enabling compression information to be placed in the given area, the compression information representing a type of the compression process; and  
means for transmitting the packets from a transmission side

to a reception side via a serial interface.

9. A signal processing apparatus comprising:

means for converting a data stream containing audio packs  
5 into packets each having a given area; and

means for enabling at least one of a down sampling flag, a  
down mix flag, and a dequantization flag to be placed in the given  
area.

10 10. A signal processing apparatus as recited in claim 9, further  
comprising means for down-sampling and dequantizing main data  
into processing-resultant data, means for receiving a transmission  
request, and means for loading the packets with the processing-  
resultant data and transmitting the packets in response to the  
15 received transmission request.

11. A signal processing apparatus comprising:

means for receiving packets each having a given area, the  
packets resulting from conversion of a data stream containing audio  
20 packs, wherein at least one of a down sampling flag, a down mix  
flag, and a dequantization flag is placed in the given area; and

means for decoding the at least one of the down sampling flag,  
the down mix flag, and the dequantization flag.

25 12. A method of signal transmission, comprising the steps of:

converting a data stream containing audio packs into packets

enabling at least one of a down sampling flag, a down mix flag, and a dequantization flag to be placed in the given area; and

transmitting the packets via a serial interface.

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13. A method as recited in claim 12, further comprising the steps of down-sampling and dequantizing main data into processing-resultant data, receiving a transmission request, and loading the packets with the processing-resultant data and transmitting the packets in response to the received transmission request.

14. A signal transmission medium comprising:

means for converting a data stream containing audio packs into packets each having a given area;

15 means for enabling at least one of a down sampling flag, a  
down mix flag, and a dequantization flag to be placed in the given  
area; and

means for transmitting the packets from a transmission side to a reception side via a serial interface.

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15. A signal processing apparatus comprising:

means for converting a data stream containing audio packs into packets each having a given area assigned to real data, the audio packs storing audio data resulting from an encoding process; and

25 means for enabling encoding information to be placed in the  
given area, the encoding information representing a type of the

encoding process.

16. A signal processing apparatus comprising:

means for receiving packets each having a given area assigned  
5 to real data, the packets resulting from conversion of a data stream  
containing audio packs storing audio data resulting from an  
encoding process, encoding information being placed in the given  
area, the encoding information representing a type of the encoding  
process; and

10 means for decoding the encoding information.

17. A method of signal transmission, comprising the steps of:

converting a data stream containing audio packs into packets  
each having a given area assigned to real data, the audio packs  
15 storing audio data resulting from an encoding process;

enabling encoding information to be placed in the given area,  
the encoding information representing a type of the encoding  
process; and

20 transmitting the packets via a serial interface.

18. A signal transmission medium comprising:

means for converting a data stream containing audio packs  
into packets each having a given area assigned to real data, the audio  
packs storing audio data resulting from an encoding process;

25 means for enabling encoding information to be placed in the  
given area, the encoding information representing a type of the

means for transmitting the packets from a transmission side to a reception side via a serial interface.

- 5 19. A signal transmission medium as recited in claim 18, wherein  
the encoding process comprises a 1-bit DSD encoding process.
20. A signal transmission medium as recited in claim 14, wherein  
the down sampling flag indicates halving an original sampling  
10 frequency.
21. A signal transmission medium as recited in claim 8, wherein  
the compression information comprises information representing  
that DSD encoded data are compressed by a predetermined  
15 compression process.